IN VITRO CULTURE OF AQUATIC PLANT
Aglaonema simplex

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Tarikh	Waktu Pemulangan	Nombor Ahli	Tanda tangan
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24/7/06	4.00 pm	UK10532	
8/8/06	1.20 pts.	UK10504	
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14/8/06	2-00 p.m	UK10	
	7-00 AM		

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IN VITRO CULTURE OF AQUATIC PLANT *Aglaonema simplex*

By

Wardah bt. Mohd Paudzi

Research Report submitted in partial fulfilment of the requirements for the degree of Bachelor of Science (Biological Sciences)

Department of Biological Sciences
Faculty of Science and Technology
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2004

KUSTEM

JABATAN SAINS BIOLOGI
FAKULTI SAINS DAN TEKNOLOGI
KOLEJ UNIVERSITI SAINS DAN TEKNOLOGI MALAYSIA

PENGAKUAN DAN PENGESAHAN LAPORAN PROJEK PENYELIDIKAN I DAN II

Adalah ini diakui dan disahkan bahawa laporan penyelidikan bertajuk:

In vitro culture of aquatic plant *Aglaonema simplex*

oleh Wardah Binti Mohd Paudzi, No. Matrik UK 5642

telah diperiksa dan semua pembetulan yang disarankan telah dilakukan. Laporan ini dikemukakan kepada Jabatan Sains Biologi sebagai memenuhi sebahagian daripada keperluan memperolehi Ijazah Sarjana Muda Sains – Sains Biologi,
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LIST OF SYMBOLS

mg/L	-	Milligram per liter
BAP	-	Benzylaminopurine
Kin	-	Kinetin
2iP	-	2-Isopentyladenine
HCl	-	Hydrochloric acid
NaOH	-	Natrium hydrochloride
M	-	Molar
v/w	-	Volume per weight
v/v	-	Volume per volume

ABSTRACT

An aquatic plant, *Aglaonema simplex* has been successfully cultured in – vitro using shoot tip in MS medium containing 1.0 mg/L of BAP. The optimum sterilization condition was by using 100% (v/v) of Clorox with 30 minutes of immersion time. The effect of media (MS medium, B5 medium and AS medium) and cytokinin (BAP, Kinetin and 2iP) were examined. The best growth was obtained in MS medium containing 5.0 mg/L of BAP. Three types of explants, which were complete plantlet, shoot in longitudinal section and shoot in cross section were used for induction of shoot proliferation. The highest number of shoot proliferation was obtained using longitudinal section, which cultured in MS medium containing 5.0 mg/L of BAP.

ABSTRAK

Kultur in – vitro tumbuhan akuatik, *Aglaonema simplex* telah berjaya dihasilkan dengan menggunakan pucuk dan dikultur di dalam media MS yang mengandungi 1.0 mg/L BAP. Kadar pensterilan yang optimum didapati dengan menggunakan 100% (v/v) Klorox, direndam selama 30 minit. Kesan media (MS, B5 dan AS) dan sitokinin (BAP, Kinetin dan 2iP) telah dikaji. Pertumbuhan pokok yang terbaik didapati di dalam media MS yang mengandungi 5.0 mg/L BAP. Tiga jenis eksplan iaitu pokok yang sempurna, pucuk pada keratan memanjang dan pucuk pada keratan melintang digunakan untuk mengaruh pertumbuhan pucuk yang baru. Bilangan pucuk yang tertinggi didapati dengan menggunakan pucuk pada keratan memanjang yang dikultur di dalam media MS yang mengandungi 5.0 mg/L BAP.